National Oceanic & Atmospheric Administration
NOAA in the CAROLINAS

South Atlantic Alliance
Posted on Wednesday, October 28, 2009 as a courtesy to the National Oceanic and Atmospheric Administration (NOAA).

Representatives from NOAA and the states of North Carolina, South Carolina, Georgia and Florida, announced the formation of a partnership to better manage and protect ocean and coastal resources, ensure regional economic sustainability, and respond to disasters such as hurricanes. The announcement was made during the annual meeting of the Coastal States Organization in Charleston, S.C.

The Governors' South Atlantic Alliance will leverage resources from each state and supporting partners to protect and maintain healthy coastal ecosystems, keep waterfronts working, enhance clean ocean and coastal waters and help make communities more resilient to natural disasters. The four states previously met with the White House Council on Environmental Quality to obtain support from NOAA and other federal agencies including the U.S. Geological Survey and EPA.

Jane Lubchenco, Ph.D., Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator, welcomed this announcement as a crucial step to discuss issues paramount to the region's economic vitality and quality of life.

SECART update
Jeff Payne, Deputy Director of the NOAA Coastal Services Center and Southeast and Caribbean Regional Team (SECART) Lead since its inception, is currently serving in NOAA Headquarters as Acting Deputy Chief of Staff to Dr. Jane Lubchenco. Jeff's detail is scheduled to last six months, during which time Aleta Hohn, Director of National Marine Fisheries Service programs at the NOAA Beaufort Lab, will serve as the interim SECART Team Lead. Aleta will be the Team Lead during the upcoming SECART annual meeting, in which the team will work to develop its FY10 work plan as well as it's FY10 - 12 outreach and communications plan. Aleta will continue to participate in NOAA in the Carolinas activities, especially as NOAA in the Carolinas plans its next annual meeting.

CI-FLOW
The interdisciplinary multi-institutional CIFLOW research team leveraged a valuable research opportunity provided by Tropical Storm Ida to demonstrate, in real-time, the capability to use the National Severe Storm Lab's (NSSL) real-time gridded quantitative precipitation estimates (QPE) as forcing for the CIFLOW river models. CIFLOW also tested NOAA nowCOAST (nowcoast.noaa.gov) CIFLOW visualization capabilities, supported by SECART funding, to explore how data can be displayed for stakeholder outreach by NOAA SeaGrant and NWS offices as well as internally for science assessments by CIFLOW team members (Fig 1). For this demonstration, the newly developed CIFLOW computing environment collected hourly multi-sensor QPEs from the NSSL Q2 system (nmq.ou.edu) and gridded quantitative precipitation forecast (QPF) products from NOAA's Hydrometeorological Prediction Center to feed into one of two CIFLOW models. The NWS' HL-RDHM, generated 10-day forecasts of streamflow for multiple points in the Tar-Pamlico and Neuse River basins (Fig 2). The HL-RDHM model now runs routinely four times a day (0000 UTC, 0600 UTC, 1200 UTC, 1800

UTC) at the National Weather Center in Norman, OK as a result of a CIFLOW sponsored partnership between researchers at NSSL, University of Oklahoma's (OU) School of Civil Engineering and Environmental Science, and the OU Cooperative Institute for Mesoscale Meteorological Studies (CIMMS), to demonstrate a viable framework to exchange information across multiple organizations and computing infrastructures in real time. As CIFLOW closes out the 2009 Atlantic hurricane season, CIFLOW partners at UNC-Chapel Hill and OU will continue to leverage a NOAA IOOS research effort to stabilize the ADCIRC grid to accommodate inland rivers and bays in the NC tidal zones. This will allow CIFLOW to complete a demonstration of the CIFLOW coupled model system which uses freshwater flows from the river models to force the ADCIRC model water level simulations to produce simulations of total water level (tides+waves+freshwater inflows+storm surge) for the lower portions of the Tar-Pamlico and Neuse Rivers and coastline of the Pamlico Sound using past storm events including Hurricane Isabel.

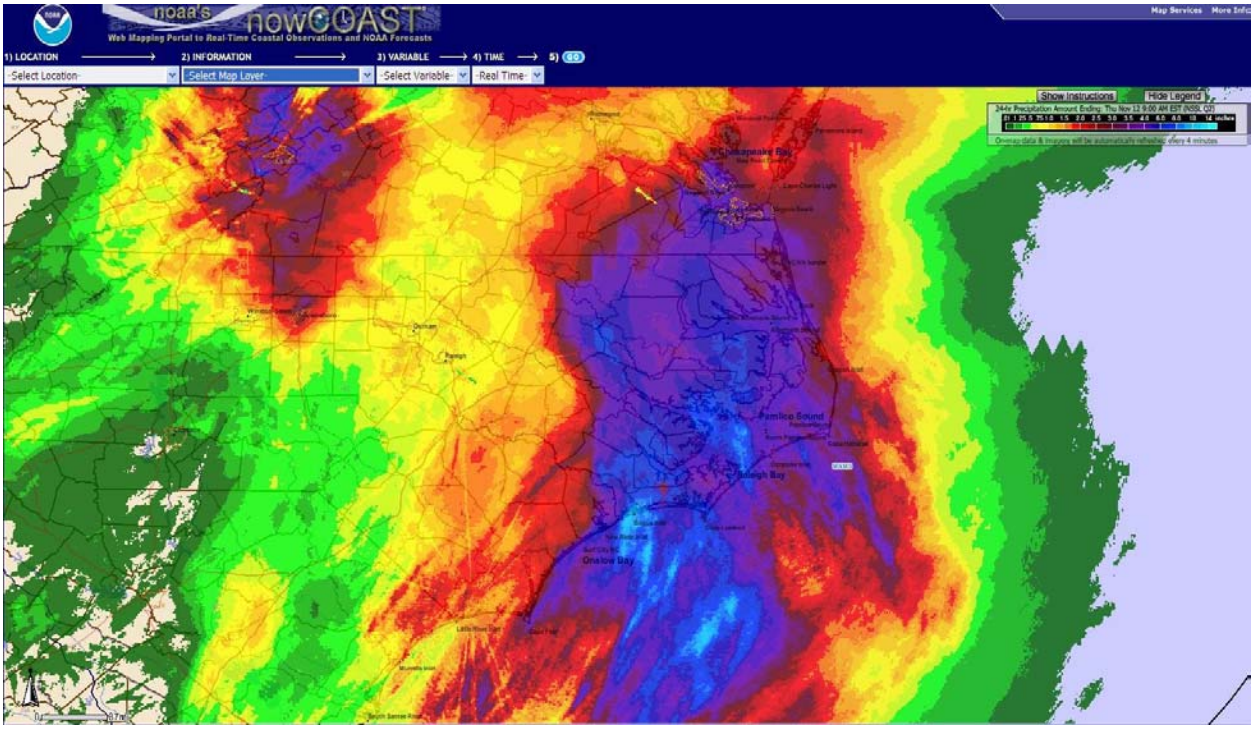

Fig. 1: Image of SECART supported NOAA nowCOAST display of NSSL Q2 system data. Image shows 24 hour rainfall estimates using NSSL multi-sensor QPE techniques for the period ending 15 UTC November 12, 2009.

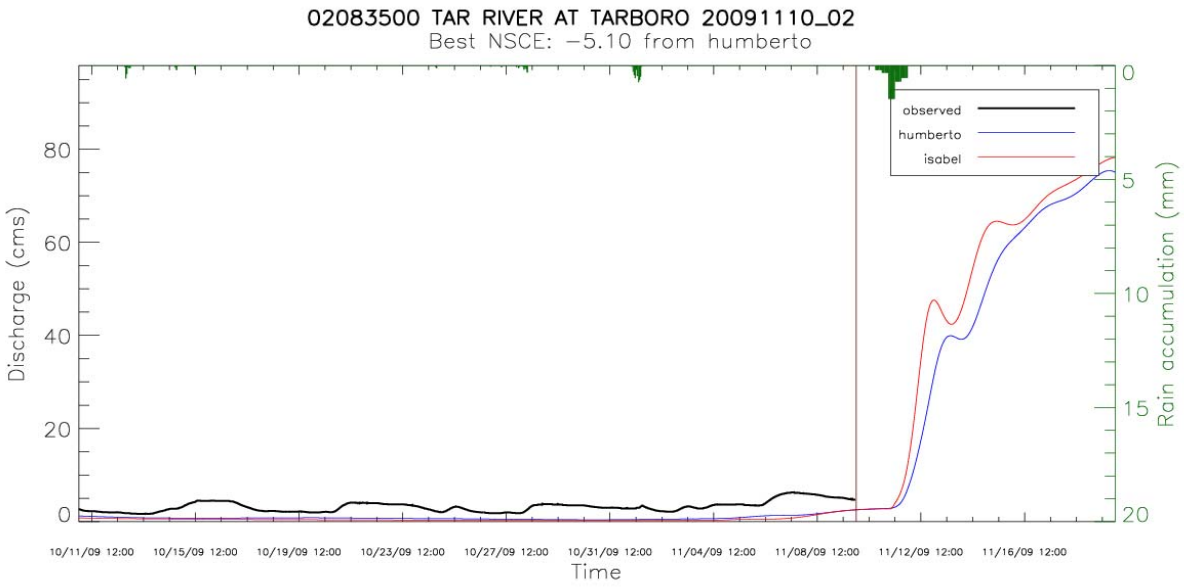

Fig. 2 Image of the November 11 00 UTC HL-RDHM 10-day simulation of river discharge for the Tar River gauge at Tarboro. NSSL QPE and NOAA HPC QPF used as forcing. The red and blue lines indicate different model parameter sets used within HL-RDHM which are being evaluated by CIFLOW researchers for the impact on the accuracy of CIFLOW river simulations.

Website

NOAA in the Carolinas "In the Spotlight" features the North Carolina National Estuarine Research Reserves (NCNERR) during the month of November. NCNERR protects approximately 10,500 acres of estuarine habitats in coastal North Carolina for the purposes of research and education. The NCNERR is part of the National Estuarine Research Reserve System (NERRS), a network of 27 protected areas established to promote informed management of the Nation's estuaries and coastal habitats. To learn more about their research and activities, please visit: www.carolinas.noaa.gov.